

DOCUMENT RESUME

ED 217 123

CE 030 355

AUTHOR Fasokun, Thomas O.
 TITLE Relationship between Learning Climate and Academic Achievement in Adult Extra-Mural Classes in Nigeria.
 PUB DATE [81]
 NOTE 21p.
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Academic Achievement; *Adult Education; *Adult Learning; Adults; Comparative Analysis; Definitions; Discovery Learning; *Educational Practices; *Extension Education; Individualized Instruction; National Surveys; Nontraditional Education; Open Education; Self Contained Classrooms; Student School Relationship; *Student Teacher Relationship
 IDENTIFIERS *Learning Environment; Nigeria

ABSTRACT

A study examined the relationship between different types of learning climates and the levels of academic achievement in extra-mural classes in Nigeria. Investigated during the course of the study were the following six types of learning climates: open, autonomous, controlled, familiar, paternal, and closed. To determine what, if any, relationship exists between learning environment and academic achievement, researchers administered two research instruments to a random sample of 800 adults who were attending extra-mural classes in various locations in Nigeria. After subjecting the data to a variety of statistical analyses, researchers arrived at the following conclusions: (1) learning climates vary from one subject to another; (2) standards of academic achievement attained by adult learners also vary according to subject; and (3) there is no significant relationship between learning climate and adult academic achievement in extra-mural classes. Recommendations called for continued research to determine those factors that may affect the degree of academic achievement attained by adult learners.
 (Author/MN)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED217123

RELATIONSHIP BETWEEN LEARNING CLIMATE AND ACADEMIC ACHIEVEMENT
IN ADULT EXTRA-MURAL CLASSES IN NIGERIA.

By

DR. THOMAS O. FASOKUN,
Lecturer in Adult Education,
Department of Continuing Education,
Faculty of Education,
University of Ife, Ile - Ife,
N I G E R I A .

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Thomas O. Fasokun

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

CE030353

RELATIONSHIP BETWEEN LEARNING CLIMATE AND ACADEMIC ACHIEVEMENT
IN ADULT EXTRA-MURAL CLASSES IN NIGERIA.

Abstract

This study examined the different types of learning climates and the levels of academic achievement in extra-mural classes in Nigeria.

A review of related literature led to the identification of six types of learning climates. These were the open, autonomous, controlled, familiar, paternal and closed learning climates. A major hypothesis, "there is no significant relationship between learning climate and academic achievement in adult extra-mural classes" was tested. Data were collected from the administration of two research instruments on a random sample of eight hundred adults who were attending extra-mural classes in various locations in Nigeria. The data collected were analysed by the use of such statistical techniques as the mean, the t - test and the chi-square to examine the stated hypothesis. The results indicated that

- (i) learning climates vary from one subject to another.
- (ii) the standard of academic achievement attained by the adult learners also varies from one subject to another.
- (iii) there is no significant relationship between learning climates and adults' academic achievement in extra-mural classes.

Based on the above findings, it was suggested that efforts should be made by extra-mural organisers to identify the various factors (other than the learning climates) that may significantly affect the quality of adult learners' results at the General Certificate of Education.

Introduction

In some part of the world, attempts have been made within the last two decades to study the learning climates that exist in different educational institutions. A few of such studies have been carried out by Stern and Steinhoff (1963) Halpin and Croft (1963), Halpin (1966), Owens (1970), Williams (1973), Day (1974), Hinojosa (1974), Ajayi (1976) Young (1977), and Adeboyeje (1980). Some of the aforementioned researchers especially Ajayi and Adeboyeje have based the identification of the learning climates of the schools investigated on the pattern described by Halpin and Croft.

Halpin and Croft developed an instrument called the "Organizational Climate Description Questionnaire" (OCDQ) which is by far the most popular and widely used technique for assessing the learning climate of schools. The instrument which contains sixty-four items which seek the opinion of respondents was to make people describe the ways teachers behaved and the various conditions under which they worked. The learning climates identified were termed "Open", "Autonomous", "Controlled", "Familiar," "Paternal", and "Closed".

The open climate depicts a situation in which the members enjoy extremely high 'esprit decorps'. Group members are not saddled with busy work or routine reports. Group members work well together without bickering or griping. They enjoy friendly relations with one another. They have considerable job satisfaction and are sufficiently motivated to overcome difficulties and frustrations. They are proud to be associated with the institutions. Group members possess the incentive to work things out and keep the organization "moving".

In the autonomous climate group members have complete freedom in satisfying their social needs. However, when teachers are in task-oriented situation, they are engaged in their work and they achieve their goals easily and quickly. Teachers do not complain about paper work or the routine reports they are required to submit. Procedures and regulations are established to facilitate the group members' task and these serve as guidelines for the group members to follow. There is little personal monitoring of the activities of the group members by the organizers of the extra-mural classes. Rather, the organizers allow group members to work at their own speed so far as they follow the regulations and procedures which are provided as guidelines. The moral is high but not as high as in the open climate.

The controlled climate otherwise known as official climate is a rigid atmosphere in which there is an evidence of the exercise of authority from above. Life is virtually regimented. Everyone works hard and there is little time for friendly relations with one another. Also, there is little time for deviation from the established controls or directives. Group members are completely engaged in the task. They do not bicker, find fault, or differ with the organizers' directives. Theirs is to get the job done. The activities of group members in their institutions go on like clock work and hence, group members enjoy little sense of freedom to try things out. The organizers work very hard, trying to see to it that everything runs properly. The organizers become dogmatic when group members do not conform to their views.

In the familiar type of climate, the group members are conspicuously friendly. Social need^s satisfaction is extremely high, but little is done to contrôl or direct the group's activities towards goal achievement. As such, the group members accomplish little in a task-oriented situation. Group members establish personal friendships among themselves, and socially everyone is part of a big happy family. The organizer does not emphasize production nor does he do much personally to insure that the group members are performing their tasks correctly. As a result of this, no one works to full capacity.

The paternal climate is the "Daddy - Knows- Best" type of climate. It is typified by the ineffective attempts of the teachers to control the learners as well as to satisfy their needs. Teachers do not necessarily cooperate with the organizers. They split into factions. Teachers do not enjoy friendly relations with one ~~another~~ or with the organizers. The organizer in each of the institutions is everywhere at once, checking, monitoring and telling the learners how to do things. The organizer wants to know everything that is going on, to the extent that he becomes intruding. He personally sets up such items as the time-table and class changes, thinking he knows best.

The closed climate which may also be called a confused climate is a situation in which group members obt in little or no satisfaction with regard to either task - achievement or social- need^s satisfaction. The teacher is ineffective in directing learners' activities in the class. He does not concern himself with personal welfare of the group members. There is no partte^r set for anything and activities are arranged at the convinience of the teachers: Group members do not work well together and group achievement is minimal.

Efforts have been made in the recent past to find out whether or not there is a significant relationship between these learning ~~climates~~ and academic achievement in various institutions. These efforts have been prompted by the search for the explanation of the differences in the academic performances of individuals and sets of candidates that took the same examination conducted by the same examining body. Researchers have tried to look into various directions for explanation. While some of the researchers like Goddard (1912) Brembeck (1966) and Burt (1958) believe that intelligence can be determined by heredity others like Hunt (1967) believe in the predominant influence of environment in the learners' intellectual development. Another school of thought believes that intellectual performance is a function of both heredity and environment, each penetrating the other and modifying its influence to certain degrees under certain circumstances. This school of thought believes that a person's test scores reflect a number of different factors. The major variables are the individual's inherited potential, both in terms of general intelligence and specific capacities for training, plus the environment in which the organism has developed.

The conclusion that may be drawn here is that factors, other than those in the extra-mural classes, have notable effects on academic achievement. Such factors as shown here, include the home background and the general cultural and economic environment of the learners. Based on this conclusion, it may be justified to infer that no single factor like the learning climate may have a significant relationship with academic achievement in adult extra-mural classes. Hence, it was hypothesized that there is no significant relationship between learning climate and academic achievement in adult extra-mural classes.

Research Methodology

In order to collect data that are relevant to the testing of the above hypothesis, two research instruments were designed. The first instrument was named "Extra-Mural Learning Climate Opinionnaire" (EMLCO) while the second instrument was named "Learners Academic Results in Extra-Murals" (LAREM).

The EMLCO instrument contained forty-two statements. Adult learners were requested to rate the learning climates of each of the subjects they possess the results at the General Certificate of Education (GCE) examination in terms of the statements contained in the opinionnaire. The statements, though spread through various parts of the opinionnaire were purposely directed towards finding out specific learning climates. The formulation of these statements was guided by the knowledge resulting from the review of related literature and due consideration was given to the extent to which a statement was relevant to the hypothesis being tested, the ability of the statements to show discrimination in responses and the extent to which it was clear, simple and understandable to respondents.

The LAREM instrument was designed and used to collect information on the classification of learners' results in each of the subjects offered in the General Certificate of Education (GCE) examination conducted by a central body called the West African Examinations Council (WAEC).

The two instruments were submitted to a panel of six judges for vetting and a unanimous verdict declaring the statements relevant was returned by the panel.

Validation and Reliability of the Instruments

A trial administration of the instruments was carried out by the

investigator. Seventy-five adults attending extra-mural classes were selected at random and were given the opinionnaires to fill. They were also asked to point out statements which they considered not clear. An item by item analysis of the responses showed that all the statements were attempted. Further, the respondents confirmed that they understood all the statements in each of the two instruments.

To determine the reliability of the instruments, the test-retest technique was adopted. The instruments were administered to the same group of adult learners twice, with an interval of two weeks between the two tests. The correlation coefficients of the two sets of scores from each of the instruments was found. The reliability coefficients of 0.862 and 0.975 were obtained for the EMLCO and LAREM instruments respectively. These coefficients were considered to be sufficiently high and both were significant at 0.01 level of probability.

Administration of the Final Instruments

The two instruments were administered on a random population of 800 adults who were attending extra-mural classes in various locations in Nigeria. These group of adults have spent at least one year in each of the extra-mural classes and have therefore attempted and possessed the results of the General Certificate of Education (GCE) examination at either the ordinary level or the advanced level. Subjects offered included bible knowledge, biology, chemistry, commerce, economics, english language, english literature, geography, government, history, mathematics and physics.

To supplement the opinionnaire responses, more detailed information was obtained through structured personal interviews with a sample of the adults.

Quantification of Data

The data collected through the administration of the two research instruments, EMLCO and LAREM were quantified as follows:

The ratings by the adult learners on EMLCO were hand-scored thus: 5 for "Applies All the Time", 4 for "Applies Most of the Time", 3 for "Applies Occasionally", 2 for "Rarely Applies" and 1 for "Never Applies". The means of the ratings of the type of learning climates that prevailed in each of the different subjects offered by the adult learners in adult extra-mural classes were calculated to determine the value of each of the six types of climate in each subject. The result is presented in Table 1.

In the case of the data on academic achievement, the grades awarded to each of the learners in each of the subjects attempted at the General Certificate of Education (GCE) examination were assigned values thus: 8 for A1 grade; 7 for A2 grade; 6 for A3 grade; 5 for C4 grade; 4 for C5 grade; 3 for C6 grade; 2 for P7 grade; 1 for P8 grade and 0 for F9 grade which is a failure. Since the number of candidates who sat for GCE examinations in each subject varied, the points scored in respect of each subject were added together and divided by the number of candidates who took the same subject at the same period. In essence, only the average points were used to determine the standard of academic achievement of the adult learners.

The average points were then categorised into three academic standard levels, namely, "low", "Medium", and "high". In classifying the academic standards attained by the learners into these three categories, the investigator was guided by ^{what} the West African Examinations Council (WAEC) gives to the subject grades. Hence, candidates whose academic standards fall within F9, P8, and P7 in any of the subjects at the G.C.E. examination score

between zero and two points and are thereby regarded as having achieved low academic standard. Candidates whose GCE. examination results fall within C6, C5, and C4 score between three and five points and are regarded as having achieved medium academic standard. Those candidates whose G.C.E. examination results fall within A3, A2 and A1 score between six and eight points and are regarded as having achieved high academic standard. The result is presented in Table 2.

Analysis of Data and Results

The investigator determined: (a) the mean values of each of the six types of learning climates already identified and (b) the mean level of academic standards reached by the adult learners in each of the subjects offered at the General Certificate of Education (G.C.E.) examination.

Table 1, therefore, presents the summary of the means of adult learner's rating of the learning climate of each subject while Table 2 presents a summary of the means of standard of academic achievement by the adult learners in each subject.

Table 1

Means of Adult Learners' Rating of the Learning Climate of Each Subject

Subjects	Learning Climates						Dominant Learning Climate
	Open	Autonomous	Controlled	Familiar	Paternal	Closed	
Bible Knowledge	4.365	2.342	2.006	2.886	1.853	1.106	Paternal
Biology	3.826	2.105	2.663	2.224	2.083	1.446	Open
Chemistry	2.014	3.448	2.147	2.161	2.316	1.214	Autonomous
Commerce	4.148	3.110	2.156	2.127	2.514	1.401	Open
Economics	3.789	2.159	2.163	2.428	2.188	1.362	Open
English Language	2.006	2.146	4.413	2.614	2.586	1.738	Controlled
English Literature	2.778	4.063	2.526	2.489	2.318	1.663	Autonomous
Geography	2.908	2.407	2.681	2.109	4.112	1.406	Paternal
Government	4.119	3.016	2.089	2.417	2.670	1.557	Open
History	2.147	2.809	2.647	3.617	2.222	1.386	Familiar
Mathematics	2.001	2.126	2.189	2.374	4.563	1.658	Paternal
Physics	2.636	2.107	2.334	2.242	4.307	1.709	Paternal

TABLE 2

Means of Standard of Academic Achievement by the Adult Learners in each Subject

Subjects	Number Involved	Total Points	Mean Points	Academic Standard
Bible Knowledge	397	1418	3.572	Medium
Biology	426	851	1.998	Low
Chemistry	235	262	1.115	Low
Commerce	158	728	4.608	Medium
Economics	584	2291	3.923	Medium
English Language	698	549	0.787	Low
English Literature	387	634	1.638	Low
Geography	292	580	1.980	Low
Government	368	1475	4.008	Medium
History	279	557	1.996	Low
Mathematics	463	511	1.104	Low
Physics	102	93	0.912	Low

From Table 1, it can be seen that the means of the adult learners' rating of each of the six types of learning climates vary from one subject to another. In order to determine the dominant learning climate as identified by the adult learners, the t-test analysis was carried out on the two highest means in each of the subjects examined in this study. The difference between the two highest means in each of the subjects was found to be significant at 0.05 level of probability. On the basis of this, the climate having the highest mean in each subject was taken as the dominant learning climate for that subject.

From Table 2, it can be seen that the standard of academic achievement attained by the adult learners also varies from one subject to another. This is evidenced from the simple fact that the mean points scored by the adult learners in each subject range between 0.787 and 4.608.

However, in order to determine whether or not there was a significant relationship between learning climate and academic achievement in adult extra-mural classes, the chi-square technique was used. Table 3 summarizes the frequencies (resulting from the adult learners' perceptions of the relationship between the learning climate and academic achievement) on the basis of which the chi-square was computed.

Table 3

The Relationship Between Learning Climate and Academic
Achievement in Adult Extra-Mural

Classes

	R O W												
COLUMN	LEARNING CLIMATE												OBSERVED TOTAL IN EACH ROW
	OPEN		AUTONO- MOUS		CONTRO- LLED		FAMINAR		PATERNAL		CLOSED		
ACADEMIC ACHIEVEMENT	f _o	f _e	f _o	f _e	f _o	f _e	f _o	f _e	f _o	f _e	f _o	f _e	
Medium	1	1.67	0	0.67	0	0.33	0	0.33	1	0.1.00	0	0.00	4
Low	1	3.33	2	1.33	1	0.67	1	0.67	3	2.00	0	0.00	8

GRAND TOTAL

12

$$df \quad (r - 1)(C - 1) = 5$$

$$\text{Level of significance} = 0.05$$

$$\text{Tabulated } \chi^2 = 11.070$$

$$\text{Computed } \chi^2 = 8.374$$

The result of the chi-square analysis yielded the value of 8.374. With 5 degree of freedom, this value was found not to be statistically significant at 0.05 level of probability $\chi^2 = 11.070$ at 0.05 level, $df = 5$; $\chi^2_{0.05} = 8.374$, $df = 5$). On the basis of this result, the hypothesis which states that:

There is no significant relationship between learning climate and academic achievement in adult extra-mural classes.

was accepted.

Discussion and Conclusion

In this study, it has been shown that there is no significant relationship between learning climate and academic achievement in adult extra-mural classes. In essence, none of the dominant learning climates in each subject could be associated with the standard of academic performances of the adult learners. This situation tends to suggest that the majority of adults attending extra-mural classes in Nigeria attend not because any particular type of learning climate which they like exists but because of the inherent values they are likely to have from their participation in extra-mural classes. These group of adults have at one time or the other attended secondary grammar schools or teacher training colleges where it has not been quite possible for them to reach their personal goals. It is therefore likely that they could ignore any unpleasant learning climate and concentrate on their subjects with a view to achieving what they failed to achieve either in the secondary grammar school or the teacher training colleges.

It is interesting to note that these adults attending the extra-mural

classes have not seen the closed climate as a dominant learning climate in any of the subjects examined in this study. Rather, the adult learners noticed that five subjects, namely, bible knowledge, biology, commerce, economics, and government were taught in the open learning climate situation. All these subjects except biology were on the average passed by the adult learners at the medium academic standard level. Biology which was taught under the conditions favourable to an open learning climate situation was passed by the adult learners at the low academic standard level. Three other subjects, namely, geography, mathematics and physics were taught in the paternal learning climate situation while the autonomous climate featured predominantly in chemistry and english literature. All these subjects were passed by the adult learners at the low academic standard levels. History and English Language attracted the familiar and controlled learning climates respectively and both subjects were averagely passed by the adult learners at the low academic standard levels.

From the fore-going, it is probably logical to infer that no particular type of climate could be identified as favouring any level of academic achievement. In fact, none of the learning climates was able to produce high academic standard. This makes it difficult for one to conclude as to which type of climate facilitates what level of standard of academic achievement.

In conclusion, it is strongly suggested that efforts should be made by extra-mural organisers to identify the various factors (other than the learning climates) that may significantly affect the quality of adult learners' results at the General Certificate of Education (G.C.E.). There is no doubt that the quality of adult learners' results is still very low

and one would like to see an improvement along this area. Such an improvement in the academic standard of the adult learners should, however, not rule out the possibility of identifying the type of learning climate which may further help the learners to achieve their desired results. In this connection, Dolpin and Croft (1963) have specifically indicated that the closed learning climate is 'bad' while the open learning climate is 'good'. There is obviously no harm in working in an environment that has been proved and found to be good. Extra-Mural organisers should therefore, strive hard to achieve the open learning climate when and where necessary.

REFERENCES

- Adeboyeje, R.A. (1980) "The Relationship Between School Climate and Academic Achievement in Selected Secondary Grammar Schools in Ondo State of Nigeria". An unpublished Master of Arts in Education Thesis, Faculty of Education, University of Ife, Ile-Ife, Nigeria.
- Ajayi, A. (1976) "The Relationship Between Principals' Leadership styles and the Climates of Secondary Schools in Ekiti". An unpublished Master of Arts in Education Thesis, Faculty of Education, University of Ife, Ile-Ife, Nigeria.
- Brembeck, C.S. (1966) Social Foundations of Education - Environmental Influences in Teaching and Learning, New York: John Wiley and Sons Inc.
- Burt, C. (1958) "The Inheritance of Mental Aptitude" The American Psychologist, Volume 13.
- Day, H.W. (1974) "A study of the Relationship Between Organizational Climate, Teachers' Pupil Control Ideology, and Pupils' Attitude Toward Learning in Elementary Schools", Dissertation Abstracts International, Volume 35, Number 1.
- Goddard, H.H. (1912) The Kalliket Family: A Study of Heredity and Feeble-mindedness. New York: Macmillan Co.
- Halpin, W. (1966) Theory and Research in Administration. New York: The Macmillan Company.
- Halpin, W., and Croft, D.B. (1963) The Organizational Climate of Schools. Chicago: Midwest Administration Center, the University of Chicago.
- Hinojosa, D. (1974) "A Study of the Relationship Between Organization Climate, The Pupil Control Ideology and Self-esteem, and Power Dimensions of Students' Self-Concept in Selected Elementary Schools in the Corpus Christi Independence School District". Dissertation Abstracts International, Volume 24, Number 11.
- Hunt, J.M. (1967). "Environment, Development and Scholastic Achievement" in M. Deutsch and Associates (eds). Social Class, Race, and Psychological Development, New York: Holt Rinebard and Winston.
- Owens, R.G. (1970) Organizational Behaviour in Schools. New Jersey: Prentice-Hall, Inc., Englewood Cliffs.
- Stern, G., and Steinhoff, R. (1963) Organizational Climate Index. Form 1163, New York: Syracuse University, Syracuse.

Williams, D.L. (1973) "Assessment of Factors Related to Student Opinion of School Climate". Dissertation Abstract International, Volume 34, Number 5.

Young, A.J. (1977) "Classroom Climate and Class Success: A Case Study at the University Level". The Journal of Education, Volume 70, Number 5.